

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

TITLE: "LIGHTING FITTING"

INVENTOR: Duan-Cheng HSIEH
Address: 2F, No. 21, Lane 78, Huai-Te St., Pei-Tou Dist.,
Taipei City, Taiwan, Republic of China
Citizenship: Taiwan

ASSIGNEE: (SAME AS APPLICANT)

CORRESPONDING APPLICATION: Taiwanese Patent Application No. 86217586 filed October 17, 1997

PATENT SPECIFICATION

EXPRESS MAIL LABEL NO:
EM 080 288 504 US

TITLE: LIGHTING FITTING**BACKGROUND OF THE INVENTION****1. Field of the Invention**

5 The invention relates to a lighting fitting, more particularly to a lighting fitting for an incandescent lighting arrangement which has a pair of incandescent bulbs.

2. Description of the Related Art

10 A conventional lighting fitting includes a lampshade body of molding plastics, a mounting bracket, a socket member, a pair of insulated conductive cord members, a containment member, a power cord member, and an incandescent bulb. The incandescent bulb has a bulb body and a bulb base. The lampshade body has
15 an upper wall with a through hole formed therethrough, and a skirt portion which extends downwardly and divergently from the periphery confining the upper wall. The mounting bracket is fixed to the upper wall, and has a mounting hole aligned with the through hole
20 of the upper wall, and a mounting face distal relative to the upper wall. The socket member has a shell portion to receive the bulb base, and a seat portion which extends from the shell portion in an axial direction and which is disposed perpendicularly to
25 abut against the mounting face of the bracket member. The insulated conductive cord members have first ends connected conductively to the seat portion of the bulb

body, and second ends that extend through the mounting hole of the bracket member and the through hole of the upper wall to form a first contact terminal. The second ends of the insulated cord members are disposed outwardly and upwardly relative to the lampshade body. The containment member is capable of housing electrical components associated with the supply of electricity to the incandescent lighting arrangement, and includes a circumferential wall superimposed upon the upper wall of the lampshade body when the containment member is coupled with the lampshade body. The power cord member is adapted to be connected to a power supply and is led downwardly and outwardly of the circumferential wall of the containment member to form a second contact terminal for coupling conductively with the first contact terminal.

Note that the incandescent bulb extends downwardly and vertically relative to the bracket member in the conventional lighting fitting. The lighting effect provided thereby is inferior to a halogen lamp which has the same wattage as the incandescent bulb, thereby resulting in discomfort to a user who is accustomed to the lighting arrangement of the halogen lamp.

SUMMARY OF THE INVENTION

Therefore, the object of this invention is to provide a lighting fitting for an incandescent

lighting arrangement that includes a pair of incandescent bulbs and that can provide lighting arrangement comparable to that of a halogen lamp which has the same wattage as the incandescent bulbs.

5 Accordingly, the lighting fitting of this invention is adapted for an incandescent lighting arrangement with a pair of incandescent bulbs, and includes a lampshade body, a mounting bracket, a pair of socket members, a pair of insulated conductive cord
10 members, a containment member, and a power cord member. The lampshade body is formed from molding plastics, and has an upper wall that defines a through hole in a center thereof, and a skirt portion that extends downwardly and divergently from the periphery defining
15 the upper wall. The mounting bracket includes an elongated middle portion which is formed with a mounting hole that is aligned with the through hole of the upper wall and which has a distal wide surface and a proximate wide surface relative to the upper wall,
20 and first and second end portions which are in line with and disposed at opposite ends of the middle portion. The first and second end portions are bent to an acute angle relative to and toward the distal wide surface of the middle portion along two parallel
25 lines which incline at a predetermined angle relative to a vertical line that crosses a longitudinal direction of the middle portion so as to form first

5

of the upper body and into the annular portion to form a second contact terminal which is coupled electrically with the first contact terminal.

BRIEF DESCRIPTION OF THE DRAWINGS

5 Other features and advantages of this invention will become more apparent in the following detailed description of the preferred embodiment with reference to the accompanying drawings, in which:

10 Figure 1 is an exploded view of the preferred embodiment of a lighting fitting of this invention for an incandescent lighting arrangement;

Figure 2 is a partly sectional view of the preferred embodiment;

15 Figures 3 and 4 illustrate two different views of a bracket member of the preferred embodiment; and

Figure 5 is a fragmentary view of the preferred embodiment, illustrating the lighting arrangement of the incandescent bulbs.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

20 Referring to Figures 1 and 2, the preferred embodiment of a lighting fitting of this invention for an incandescent lighting arrangement is shown to include a pair of incandescent bulbs 40, a lampshade body 1, a mounting bracket 100, a pair of socket members 14, a pair of insulated conductive cord members 18, 19, 25 a containment member 2, and a power cord member. Each of the incandescent bulbs 40 has a bulb body 40A and

a bulb base 40B.

As illustrated, the lampshade body 1 is formed from molding plastics, and has an annular upper wall 16 that defines a through hole 16A in a center thereof, and a skirt portion 15 that extends downwardly and divergently from the periphery confining the upper wall 16.

The mounting bracket 100 includes an elongated middle portion 100A which is formed with a mounting hole 102 that is aligned with the through hole 16A of the upper wall 16, and which has a distal wide surface 100B and a proximate wide surface 100C relative to the upper wall 16, and first and second end portions 11, 12 which are in line with and disposed at opposite ends of the middle portion 100A. The first and second end portions 11, 12 are bent to an acute angle α , β (see Figure 3) relative to and toward the distal wide surface 100B of the middle portion 100A (see Fig. 3) along two parallel lines 100D, 100E which incline at a predetermined angle Θ relative to a vertical line "L" that crosses a longitudinal direction of the middle portion 100A so as to form first and second anchoring surfaces 110, 120. The first and second anchoring surfaces 110, 120 respectively face two opposite inner surfaces of the skirt portion 15.

Each of the socket members 14 has a shell portion 14A to receive the bulb base 40B of one of the

incandescent bulbs 40, and a seat portion 14B which extend from the shell portion 14A in an axial direction and which is disposed to abut against one of the first and second anchoring surfaces 110, 120 with the axial direction normal relative to the respective inner surface of the skirt portion 15.

Each of the insulated conductive cord members 18, 19 has one end portion connected conductively to the seat portion 14B of the socket member 14, and the other end portion led through the mounting hole 16A of the middle portion 100A and the through hole 16A of the upper wall 16 to form a first contact terminal 33. The first contact terminal 33 is disposed upwardly and outwardly relative to the lampshade body 1.

The containment member 2 is capable of housing electrical components that are associated with the electricity supply to the incandescent lighting arrangement, and includes an upper body 20 which has a circumferential wall 22 and an annular portion 21 extending downwardly from the circumferential wall 22 and of a dimension to shield the upper wall 16 when the containment member 2 is coupled with the upper wall 16 of the lampshade body 1. The power cord member includes first and second conductive cables 26, 27 which are adapted to be connected to a power supply and which are led downwardly and outwardly of the upper body 20 and into the annular portion 21 to form a second

contact terminal 32 which is coupled electrically with the first contact terminal 33.

In the preferred embodiment, the cut angle α , β ranges between 38 to 52 degrees while the predetermined angle Θ ranges between 16 to 26 degrees. The upper body 20 further includes a top mounting plate 22A formed with a communicating hole 25 for extension of the first and second conductive cables 26, 27 of the power cord member in order to form the second contact terminal 32. The hole 25 is offset relative to an axis of the through hole 16A of the upper wall 16 of the lampshade body 1.

Referring to Figure 5, the preferred embodiment further includes a circular metal plate 30 configured to and interposed between the upper wall 16 of the lampshade body 1 and the mounting bracket 100 in order to dissipate the heat of lighting of the incandescent bulbs 40.

The first and second anchoring surfaces 110, 120 are provided with two through holes respectively for passage of the insulated conductive cord members 18, 19. The containment member 2 further has two diametrically disposed positioning studs 24 that project downwardly from the circumferential wall 22. The upper wall 16 of the lampshade body 1 is formed with two diametrically opposed holes 16B for extension of the studs 24. Two nut units are threaded on the

studs 24 for securing the lampshade body 1 on the containment member 2.

As best shown in Figure 2, due to the inclined arrangement of the anchoring surfaces 110, 120 relative to the middle portion 100A, the incandescent bulbs 40 mounted thereon cooperatively provide a lighting arrangement comparable to a halogen lamp which has the same wattage as that of the incandescent bulbs 40.

While the invention has been described in connection with what is considered the most practical and preferred embodiments, it is understood that this invention is not limited to the disclosed embodiments, but is intended to cover various arrangements included within the spirit and scope of the broadest interpretation so as to encompass all such modifications and equivalent arrangements.

100A
110
120
100B
100C
100D
100E
100F
100G
100H
100I
100J
100K
100L
100M
100N
100O
100P
100Q
100R
100S
100T
100U
100V
100W
100X
100Y
100Z
100AA
100AB
100AC
100AD
100AE
100AF
100AG
100AH
100AI
100AJ
100AK
100AL
100AM
100AN
100AO
100AP
100AQ
100AR
100AS
100AT
100AU
100AV
100AW
100AX
100AY
100AZ
100BA
100BB
100BC
100BD
100BE
100BF
100BG
100BH
100BI
100BJ
100BK
100BL
100BM
100BN
100BO
100BP
100BQ
100BR
100BS
100BT
100BU
100BV
100BW
100BX
100BY
100BZ
100CA
100CB
100CC
100CD
100CE
100CF
100CG
100CH
100CI
100CJ
100CK
100CL
100CM
100CN
100CO
100CP
100CQ
100CR
100CS
100CT
100CU
100CV
100CW
100CX
100CY
100CZ
100DA
100DB
100DC
100DD
100DE
100DF
100DG
100DH
100DI
100DJ
100DK
100DL
100DM
100DN
100DO
100DP
100DQ
100DR
100DS
100DT
100DU
100DV
100DW
100DX
100DY
100DZ
100EA
100EB
100EC
100ED
100EE
100EF
100EG
100EH
100EI
100EJ
100EK
100EL
100EM
100EN
100EO
100EP
100EQ
100ER
100ES
100ET
100EU
100EV
100EW
100EX
100EY
100EZ
100FA
100FB
100FC
100FD
100FE
100FF
100FG
100FH
100FI
100FJ
100FK
100FL
100FM
100FN
100FO
100FP
100FQ
100FR
100FS
100FT
100FU
100FV
100FW
100FX
100FY
100FZ
100GA
100GB
100GC
100GD
100GE
100GF
100GG
100GH
100GI
100GJ
100GK
100GL
100GM
100GN
100GO
100GP
100GQ
100GR
100GS
100GT
100GU
100GV
100GW
100GX
100GY
100GZ
100HA
100HB
100HC
100HD
100HE
100HF
100HG
100HH
100HI
100HJ
100HK
100HL
100HM
100HN
100HO
100HP
100HQ
100HR
100HS
100HT
100HU
100HV
100HW
100HX
100HY
100HZ
100IA
100IB
100IC
100ID
100IE
100IF
100IG
100IH
100II
100IJ
100IK
100IL
100IM
100IN
100IO
100IP
100IQ
100IR
100IS
100IT
100IU
100IV
100IW
100IX
100IY
100IZ
100JA
100JB
100JC
100JD
100JE
100JF
100JG
100JH
100JI
100JJ
100JK
100JL
100JM
100JN
100JO
100JP
100JQ
100JR
100JS
100JT
100JU
100JV
100JW
100JX
100JY
100JZ
100KA
100KB
100KC
100KD
100KE
100KF
100KG
100KH
100KI
100KJ
100KK
100KL
100KM
100KN
100KO
100KP
100KQ
100KR
100KS
100KT
100KU
100KV
100KW
100KX
100KY
100KZ
100LA
100LB
100LC
100LD
100LE
100LF
100LG
100LH
100LI
100LJ
100LK
100LL
100LM
100LN
100LO
100LP
100LQ
100LR
100LS
100LT
100LU
100LV
100LW
100LX
100LY
100LZ
100MA
100MB
100MC
100MD
100ME
100MF
100MG
100MH
100MI
100MJ
100MK
100ML
100MM
100MN
100MO
100MP
100MQ
100MR
100MS
100MT
100MU
100MV
100MW
100MX
100MY
100MZ
100NA
100NB
100NC
100ND
100NE
100NF
100NG
100NH
100NI
100NJ
100NK
100NL
100NM
100NN
100NO
100NP
100NQ
100NR
100NS
100NT
100NU
100NV
100NW
100NX
100NY
100NZ
100OA
100OB
100OC
100OD
100OE
100OF
100OG
100OH
100OI
100OJ
100OK
100OL
100OM
100ON
100OO
100OP
100OQ
100OR
100OS
100OT
100OU
100OV
100OW
100OX
100OY
100OZ
100PA
100PB
100PC
100PD
100PE
100PF
100PG
100PH
100PI
100PJ
100PK
100PL
100PM
100PN
100PO
100PP
100PQ
100PR
100PS
100PT
100PU
100PV
100PW
100PX
100PY
100PZ
100QA
100QB
100QC
100QD
100QE
100QF
100QG
100QH
100QI
100QJ
100QK
100QL
100QM
100QN
100QO
100QP
100QQ
100QR
100QS
100QT
100QU
100QV
100QW
100QX
100QY
100QZ
100RA
100RB
100RC
100RD
100RE
100RF
100RG
100RH
100RI
100RJ
100RK
100RL
100RM
100RN
100RO
100RP
100RQ
100RR
100RS
100RT
100RU
100RV
100RW
100RX
100RY
100RZ
100SA
100SB
100SC
100SD
100SE
100SF
100SG
100SH
100SI
100SJ
100SK
100SL
100SM
100SN
100SO
100SP
100SQ
100SR
100SS
100ST
100SU
100SV
100SW
100SX
100SY
100SZ
100TA
100TB
100TC
100TD
100TE
100TF
100TG
100TH
100TI
100TJ
100TK
100TL
100TM
100TN
100TO
100TP
100TQ
100TR
100TS
100TT
100TU
100TV
100TW
100TX
100TY
100TZ
100UA
100UB
100UC
100UD
100UE
100UF
100UG
100UH
100UI
100UJ
100UK
100UL
100UM
100UN
100UO
100UP
100UQ
100UR
100US
100UT
100UU
100UV
100UW
100UX
100UY
100UZ
100VA
100VB
100VC
100VD
100VE
100VF
100VG
100VH
100VI
100VJ
100VK
100VL
100VM
100VN
100VO
100VP
100VQ
100VR
100VS
100VT
100VU
100VV
100VW
100VX
100VY
100VZ
100WA
100WB
100WC
100WD
100WE
100WF
100WG
100WH
100WI
100WJ
100WK
100WL
100WM
100WN
100WO
100WP
100WQ
100WR
100WS
100WT
100WU
100WV
100WW
100WX
100WY
100WZ
100XA
100XB
100XC
100XD
100XE
100XF
100XG
100XH
100XI
100XJ
100XK
100XL
100XM
100XN
100XO
100XP
100XQ
100XR
100XS
100XT
100XU
100XV
100XW
100XX
100XY
100XZ
100YA
100YB
100YC
100YD
100YE
100YF
100YG
100YH
100YI
100YJ
100YK
100YL
100YM
100YN
100YO
100YP
100YQ
100YR
100YS
100YT
100YU
100YV
100YW
100YX
100YY
100YZ
100ZA
100ZB
100ZC
100ZD
100ZE
100ZF
100ZG
100ZH
100ZI
100ZJ
100ZK
100ZL
100ZM
100ZN
100ZO
100ZP
100ZQ
100ZR
100ZS
100ZT
100ZU
100ZV
100ZW
100ZX
100ZY
100ZZ